

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Application No.: 09/842,417
Filing Date: April 25, 2001
Applicant: Ritter et al.
Group Art Unit: 3737
Examiner: Crystal I. Leach
Title: Open Field System for Magnetic Surgery
Attorney Docket: 5236-000227

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

In response to each of the grounds for rejection noted in the Examiner's
Answer, the Appellants submit this Reply Brief and states as follows:

1. 1st GROUND OF REJECTION ON APPEAL

The Board should overturn the rejections because 1) the reference does not teach all of the claim limitations, and because 2) a person of ordinary skill in the art would not have modified or combined the teachings in the cited references in a manner that would result in the fashion claimed.

I. Claims 1-5, 7-12, 14-21 and 23 Are Not Anticipated Because *Frei* Fails To “Teach All Of The Claim Limitations”

In order to establish anticipation, every element or limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. (*Karsten Mg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001)).

The Appellants note that claims 16 and 19 each recite a magnet assembly comprising a planar support, and four electromagnets (414) mounted on the planar support and arranged substantially in a vertical plane on the planar support (416), where the magnet assembly is positioned at the head of the bed as shown below:

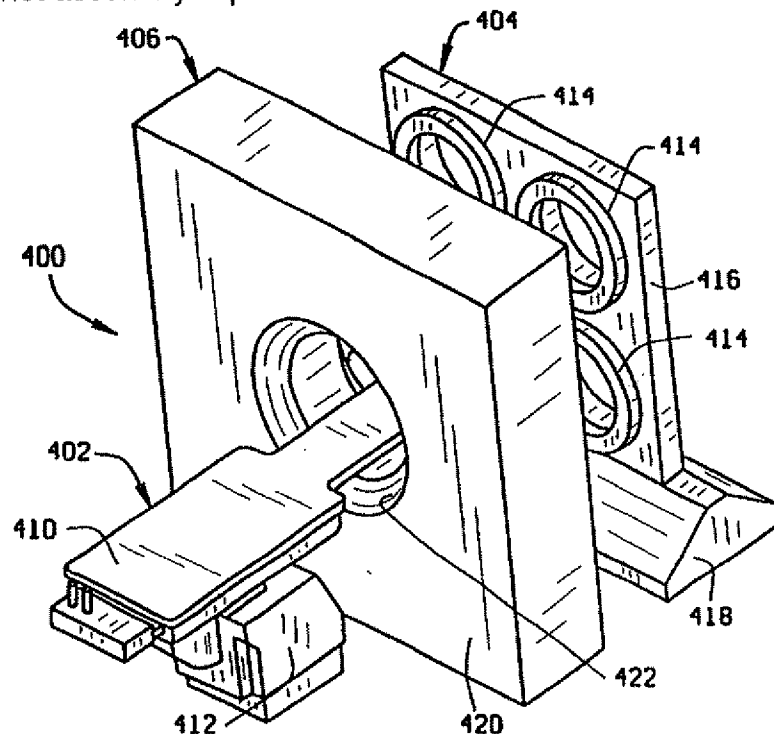
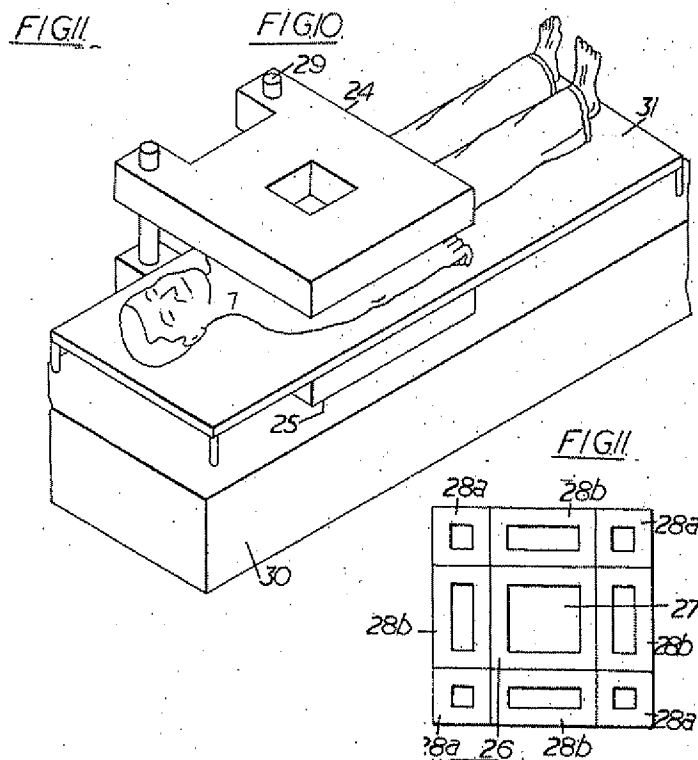


FIG. 47

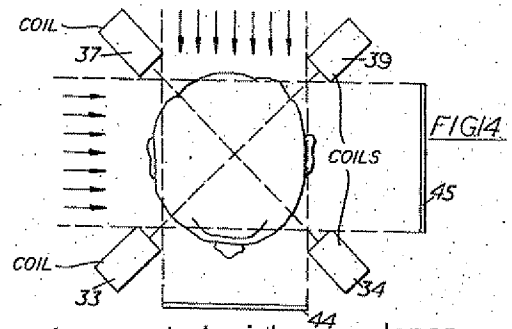
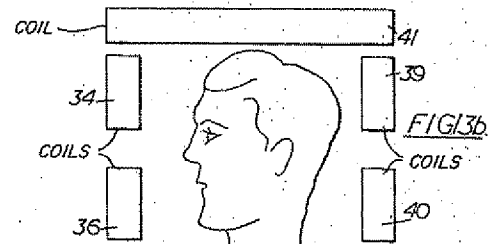
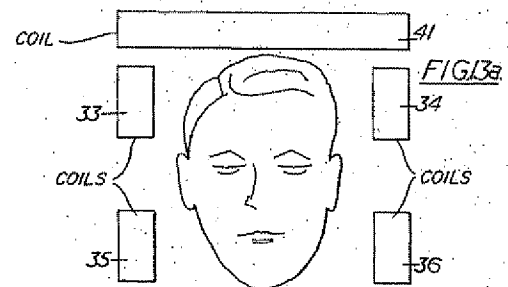
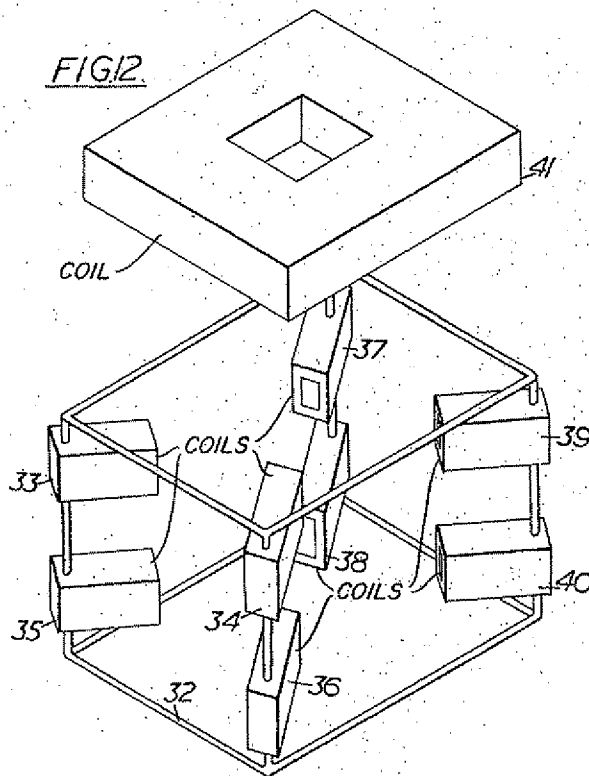
The Appellants note that the recited claim structure of four electromagnets (414) arranged substantially in a vertical plane on a planar support (416) is also disclosed in paragraph [0141] of the application, which states:

[0141] The magnet assembly 404 comprises a plurality (in this fourth preferred embodiment four) magnet coils 414 arranged on planar support 416, on a base 418. The magnet coils 414 are capable of generating a magnetic field in an operating region of sufficient strength to navigate a magnetic medical in the portion of the patient within the operating region.

The Examiner's Answer states on page 4 that *Frei* discloses coils located on a planar support (fig. 10), and that the coils are located at the corners of the planar support (fig. 11, elements 28a). However, Fig's 10-11 in *Frei* do not show four magnets arranged substantially in a vertical plane on a planar support that is positioned at the head of a bed. Rather, *Frei* requires positioning of coils above and below a patient, interposed between *horizontal* plate structures 24, 25. (See *Frei* Col. 5, ll. 52-53).



The Examiner's Answer further states on page 4 that *Frei's* coils may be placed on the corners of a planar support where the axis of at least one of the coils is not perpendicular to the plane of the planar support (fig. 12), and that the plane of the planar support may be either horizontal as in fig. 11 or vertical, as shown in the support structure of figure 12.



However, Figure 12 in *Frei* shown above does not depict any planar support that is vertical, or four coils on a single planar support arranged in a vertical plane. Rather, Figure 12 shows a single coil 41 that is merely positioned in a horizontal orientation, which works in conjunction with *separately located* coils 33, 35, 39, 40 to *moveably propel* an element within a patient. Additionally, *Frei's* separate coils 33, 35, 39 and 40 are not in a vertical plane on a planar support positioned at the head of a bed, but rather surround a patient as shown in Fig's 13a-b, and are more confining to patients than the claimed system.

Frei's complex structure of individual coils positioned around the head of a patient is not the same as the system claimed by the Appellants. Such a complex structure could not reasonably be interpreted to read on the Appellants' system having four magnets arranged substantially in a vertical plane on a single planar support that is positioned at the head of a bed.

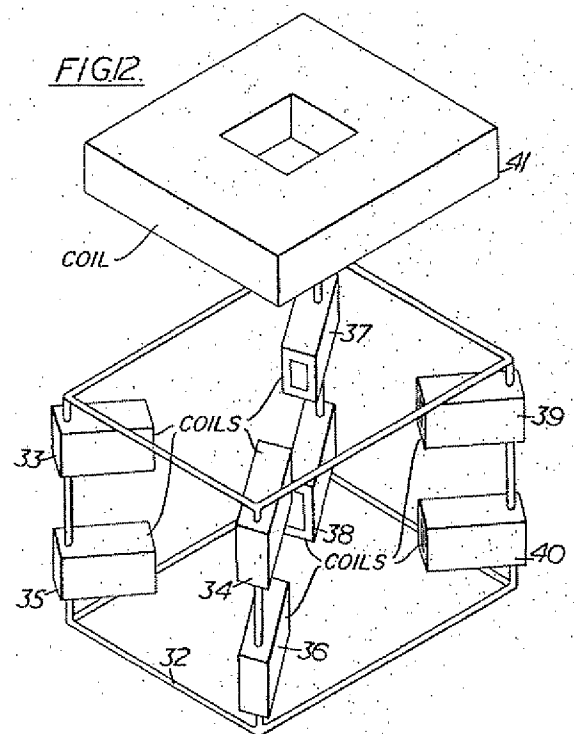
The Appellants recognize that during prosecution before the Office, the claims are to be given their broadest reasonable interpretation consistent with the specification as it would be interpreted by one of ordinary skill in the art. *In re American Academy of Science Tech. Center*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). However, the Federal Circuit has maintained that a term in a cited reference cannot reasonably be construed to describe a claimed limitation in a manner that is inconsistent with that disclosed in the specification. (See *In re Buszard*, 504 F.3d 1364, 84 U.S.P.Q.2d 1749 (2007); where the Court held that no matter how broadly a "flexible foam reaction mixture" in the cited reference is construed, the cited reference cannot reasonably be construed to describe a flexible foam product, and that it is not a reasonable claim interpretation to equate "flexible" with a "rigid" material in a cited reference).

In the present application, the Appellants submit that it is not reasonable to interpret *Frei's* complex structure of a plurality of coils positioned 360° around the head of a patient as being equivalent to Appellants' claimed magnet assembly having four magnets arranged substantially in a vertical plane on a single planar support that is positioned at the head of a bed. A person of ordinary skill in the art contemplating *Frei's* depiction in Fig. 12 of *separately located coils* 33, 35, 39 and 40 positioned 360° around the head of a patient,

would not have conceived of Appellants' much different magnet assembly with four magnets arranged in a vertical plane on a single planar support positioned at the head of a bed. Additionally, a skilled artisan would not have interpreted the Appellants' four magnets arranged in a vertical plane on a single planar support positioned at the head of a bed to read on or encompass Frei's system having coils 33, 35, 39 and 40 positioned 360° around the patient's head.

The Examiner appears to recognize that *Frei* does not disclose this claimed feature, and attempts to supplement the disclosure in *Frei* with his own conclusory statements. For example, the Examiner's Answer states on page 6 that *Frei's* "coils (33, 35, 39, 40)...are arranged substantially in a vertical plane on a planar support...whereby the rods supporting the coils are planar supports since they are supports lying within a plane." However, *Frei* discloses (in col. 6, ll. 60, 73) that the patient's head is secured within an apparatus comprising a box-like framework 32, and states (in col. 7, ll. 17) that coils 33 to 40 must point in the required direction-towards the patient's head.

Thus, *Frei* discloses two coils 33 and 35 in a first plane on one side of the patient, and two coils 39 and 40 in a second plane on an opposite side of the patient, each plane pointing towards the patient's head. A skilled artisan would not consider *Frei's* coils to read on or equate to Appellants' four coils arranged vertically on a single planar support.



Thus, the Appellants submit that *Frei* does not disclose a system for orienting a magnetically responsive element of a medical device in a patient's body, which includes four coils arranged substantially in a vertical plane on a planar support positioned at the head of a patient support bed. As such, the Appellants submit that independent claims 16, 19 and 23 are not anticipated by and distinguished from *Frei*, and are patentable for at least these reasons.

Claims 21-22

With regard to claims 21-22, these claims ultimately depend from independent claims 16 or 19, which the Appellants submit are allowable for the reasons advanced above. As such, the Appellants submit that claims 21-22 are also allowable by virtue of their dependence from claims 16 or 19.

CONCLUSION

In view of the above arguments, the Appellants submit that the presently rejected claims are not anticipated, and reversal of the present rejections is respectfully requested.

Respectfully submitted,



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CERTIFICATE OF TRANSMITTAL

I certify that on February 3, 2009, APPLICANTS' REPLY BRIEF was electronically filed with the U.S. Patent and Trademark Office.

A handwritten signature in cursive script, reading "Kevin Pumm".

Kevin M. Pumm, Reg. No. 49,046